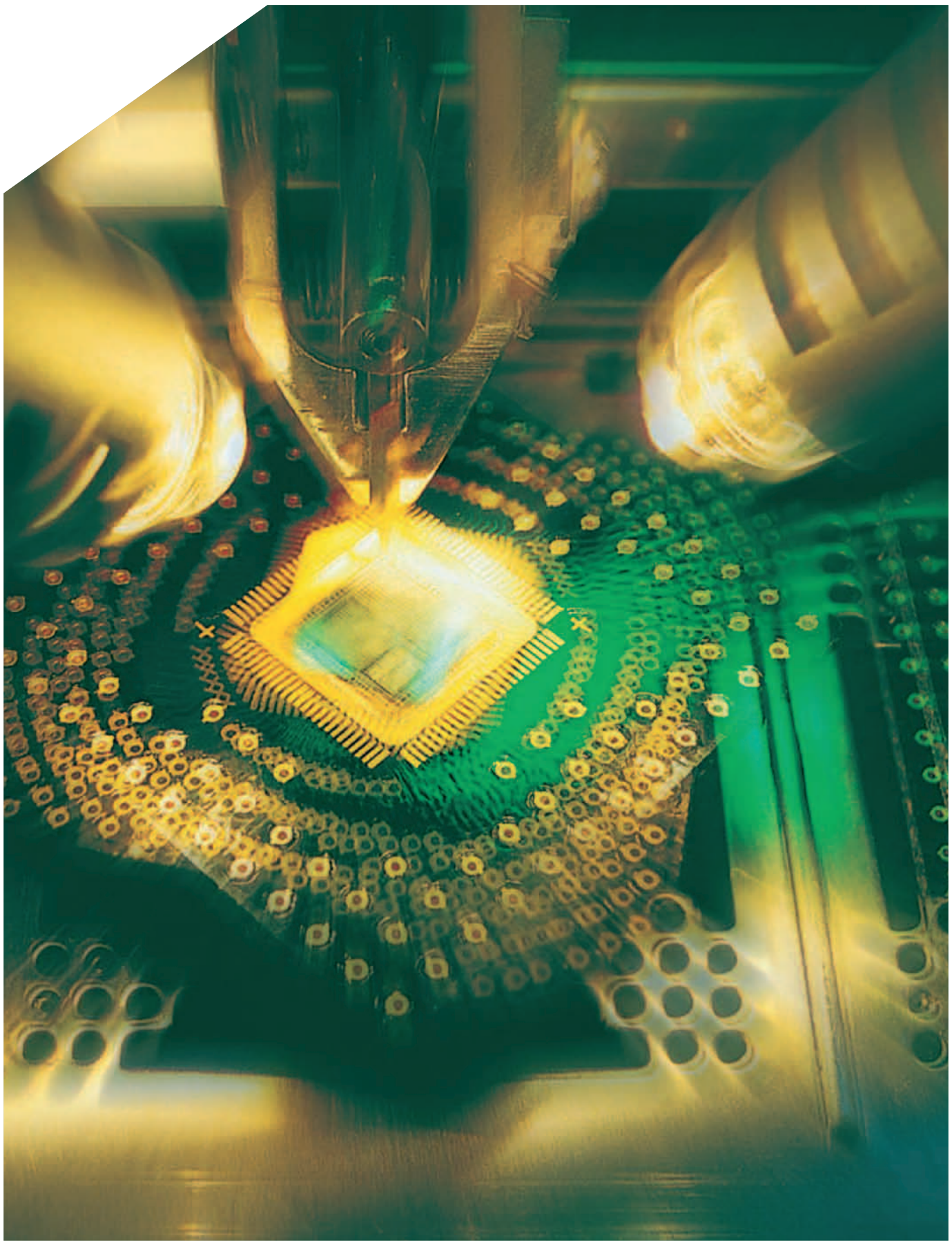
Welcome to Freescale Semiconductor



Welcome to the World of Embedded Processing and Connectivity

Since we began our operations in 1953 as Motorola's semiconductors sector, we have pioneered technologies that have made a significant impact on the industry. Today, Freescale Semiconductor is a leading global semiconductor company focused on providing embedded processing and connectivity products. We also offer a broad portfolio of complementary devices that provide connectivity between products, across networks and to real-world signals such as sound, vibration and pressure. These products include sensors, radio frequency semiconductors, power management and other analog and mixed-signal integrated circuits.

Innovation Across Industries

Our focus on the automotive, networking, wireless communications, industrial control and consumer electronics industries allows us to apply our development efforts and technological advances from one industry to another. For example, advances in 32-bit processing that are driven by our efforts in networking can also be applied to our microcontroller development efforts for the automotive industry. Similarly, advances in semiconductor design and process technologies that are driven by both our wireless and networking products can be applied to our advanced automotive products. In addition, supply chain advances that are essential in serving the automotive industry can be applied to products for our networking and wireless customers.

Learn more about our innovative solutions

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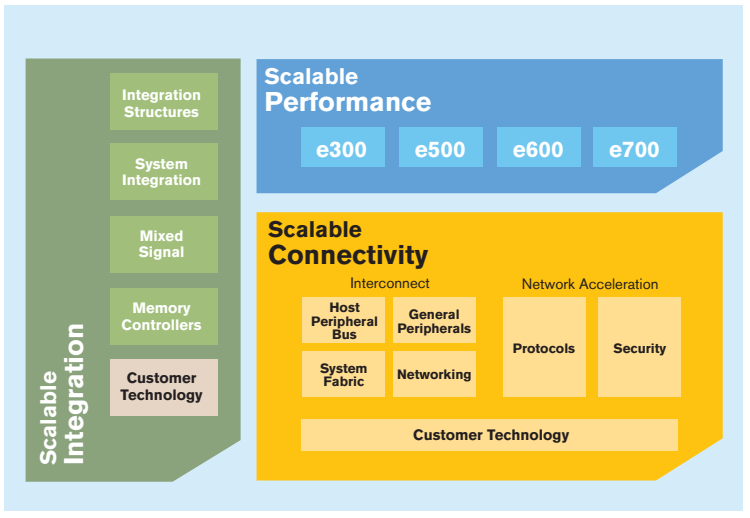
www.freescale.com

Launched by Motorola
freescale™
semiconductor

Scalable PowerPC™ System-on-Chip Platforms

Freescale Semiconductor offers a premier line of award-winning, high-performance PowerPC™ processors for the computing, networking infrastructure, and telecommunications applications. In the decade since the first PowerPC™ products entered the market, the PowerPC™ core architecture has steadily evolved in performance and capability to produce today's powerful MPC74xx processors. These PowerPC™ devices incorporate tens of millions of transistors on a chip and are manufactured in state-of-the-art 130 nm silicon-on-insulator (SOI) process technology, migrating soon to 90nm and beyond. A hallmark of the MPC74xx family is its optimal balance of high performance and low power dissipation – delivering gigahertz-class performance at less than 10W – making it an ideal solution for power-sensitive embedded applications.



Platform Overview

Freescale's e300, e500, e600 and e700 SoC platforms are engineered to deliver **scalable performance, scalable connectivity and scalable integration. The e300 PowerPC™ core and e300 platform addresses low- to mid-range performance needs**. The e300 core is an enhanced version of the popular 603e PowerPC™ core used in PowerQUICC™ II processors that scales from 266 to 667 MHz in 130nm process technology. The e300 core is fully software-compatible with existing 603e core-based products and provides the processing foundation for our advanced MPC8349E PowerQUICC™ II Pro communications processor family. **If you require higher performance you can step up to the e500 core and e500 platform, which power our award-winning PowerQUICC™ III communications processors: MPC8540/MPC8560**. Currently scaling up to 1 GHz, the high-performance e500 core is planned to exceed 1.5 GHz in next-generation process technologies. The e500 core delivers flexibility for application-specific optimisation and leverages application processing units (APU's) for instruction set extensions that are provided by the PowerPC™ instruction set architecture. **The next step in our performance roadmap is the e600 core and corresponding e600 platform**. An enhanced version of the high-performance G4 core used in the award-winning, high-performance MPC74xx family of PowerPC™ host processors, the e600 core is planned to scale beyond 2 GHz and to support chip multiprocessing (CMP) while maintaining full compatibility with the PowerPC™ instruction set architecture.

Global market share leader for communications processors - Global market share leader in radio frequency power products for the cellular base station market - Fourth position overall for wireless communications application-specific standard products - Fourth-largest global market share for digital baseband semiconductors for cellular handsets*

MPC875/MPC885 PowerQUICC™ Family

Freescale Semiconductor's PowerQUICC™ architecture containing a PowerPC™ core provides an exceptional combination of price, performance and functionality for networking and communications applications. With the introduction of the MPC885 family, Freescale takes the price/performance benefits, features and functionality of PowerQUICC™ I communications processors to the next level by reducing system cost with the integration of on-chip security features, dual Fast Ethernet ports (MII and RMII), USB, and bus speeds scaling to 80 MHz for higher system throughput. The dual Fast Ethernet parts make this part especially suitable for connectivity within the industrial market.

MPC8349E PowerQUICC™ II Pro Family

The MPC8349E PowerQUICC™ II Pro family provides a cost-effective, highly integrated control processing solution that addresses the emerging needs of networking, communications and pervasive computing applications. This family integrates the enhanced e300 PowerPC™ core and advanced features, such as DDR memory, Dual Gigabit Ethernet, Dual PCI and Hi-Speed USB controllers.

MPC8560 PowerQUICC™ III System-on-Chip Processor

Leveraging our system-on-chip (SoC) PowerQUICC™ III platform architecture, the MPC8560 combines two powerful processing blocks; a powerful Book E PowerPC™ e500 core with 256KB of Level 2 cache, and a RISC Engine Communications Processor Module (CPM). The CPM provides flexibility and performance, particularly in communications and networking applications, to balance processor performance with I/O system throughput. The MPC8560 features a double data rate DDR SDRAM controller, dual gigabit Ethernet controllers, a four-channel DMA controller, a 64-bit PCI/PCI-X controller, and a RapidIO™ interconnect.

MPC7447A High Performance Low Power Host Processor

The MPC7447A is a high-performance, low-power PowerPC™ processor with enhanced power management capabilities. Key performance enabling features include a full 128-bit implementation of Freescale's AltiVec™ SIMD technology, which offers a 12x performance boost with minimal impact to power. The MPC7447A is a pin-compatible replacement for the MPC7447, so migration up to speeds of 1.5GHz is made easy. MPC7447A processors are ideal for leading-edge computing, embedded network control and signal processing applications. Further performance will be enabled in the near future through even higher frequencies and increased levels of on-chip L2 cache.

StarCore™ MSC711x Digital Signal Processors

The MSC711x family is a high-performance, cost-effective family of DSPs based on industry licensable StarCore™ technology. Devices in the MSC711x family target high-bandwidth, highly computational DSP applications and are fully pin-compatible, allowing developers to target different performance/cost points with the same design. With built-in support for Ethernet and serial interfaces, this family is ideal for industrial applications such as control, instrumentation, healthcare monitoring and broadcast equipment, as well as providing a competitive price per channel for voice over packet telephony systems. The MSC711x family uses innovative VLES (Variable Length Execution Sets) technology, resulting in up to 2.5x smaller code size than competing VLIW architectures. This allows compact code and data storage in the small on-chip memory – lowering system cost and power dissipation. Where external system memory is needed, this DSP family is the first supporting a DDR memory interface, providing additional MegaBytes of codespace and advanced levels of memory bandwidth all for an entry level price point.

Mobile Extreme Convergence (MXC) Architecture

Our new Mobile Extreme Convergence (MXC) architecture revolutionizes the development of multimedia mobile devices. By totally redesigning the mobile architecture to combine functions, high-performance mass-market mobile devices can be developed affordably on a platform the size of a postage stamp – a significant jump over today's smallest approaches that are the size of a business card. The MXC275 platform – the first iteration of our new architectural vision - separates out the communications function software to provide a clean application development environment. It uses hardware acceleration and memory caching techniques to dramatically reduce power consumption, secures airborne transactions and enables a system-in-a-postage-stamp module to be easily integrated into existing device footprints.

MC34702 and MC34701 Switch-Mode Power Supplies

Part of Freescale's 32-bit MCU Power Management solutions, the MC34702 and the MC34701Switch-Mode Power Supplies with linear regulator are ideal companion chips for our PowerQUICC™ integrated communications processors. Our devices feature a high-performance switching regulator, providing the direct supply for the microprocessor's core, and a low dropout (LDO) linear regulator control circuit providing the microprocessor I/O and bus voltage of PowerQUICC™ processors and other advanced microprocessors. The MC34701 and MC34701 incorporate many advanced features such as precisely maintained up/down power sequencing, ensuring proper operation and protection of the CPU and power system, and a margining function through the I²C bus.

II - Networking and wireless communications by Freescale Semiconductor

www.freescale.com/networking

S12X – Fast, Smart, Efficient

Welcome to the next generation of automotive body applications with the S12X family of 16-bit microcontrollers. A higher performance extension of our popular HCS12 family, S12X microcontrollers are ideal for body control and gateway applications. The S12X family retains the 16-bit efficiency of the HCS12 and creates a migration path to help preserve your investments. The S12X family features an enhanced core, enhanced peripherals, increased bus speeds (up to 40 MHz, compared to 25 MHz for the HCS12), full CAN capability and improved interrupt handling. The S12X family initially ranges from 128 Kbytes to 1M byte of FLASH memory with additional integrated EEPROM. The MC9S12XD family retains a high degree of pin and code compatibility with the S12 and includes the performance boosting XGATE module. Using enhanced DMA functionality, this parallel processing module offloads the CPU by providing high speed data/interrupt processing and transfer between peripheral modules, RAM and I/O ports. Providing up to 80MIPS of performance additional to the CPU, the XGATE can handle 64 channels and is fully user programmable.

Our HCS12 Legacy Family of Microcontrollers

Utilising our industry-leading 0.25µm FLASH, the HCS12 family scales from 32 Kbytes to 512 Kbytes of FLASH memory. HCS12 provides an upward migration path from our 68HC08, 68HC11 and 68HC12 architectures for applications that need larger memory, more peripherals and higher performance. Also, with the increasing number of CAN-based ECUs, its multiple network modules support this environment by enabling highly efficient communications between different network buses.

8- and 16-bit Microcontrollers for Local Interconnect Network (LIN)

LOCAL INTERCONNECT NETWORK

Freescale offers a complete support package for LIN in-vehicle communication and networking development, including products, development tools, software, application notes and training material. The 68HC(9)08 and 68HC9S12(X) families are ideal for all LIN master nodes and LIN slave applications with a wide range of on-chip peripherals and enhanced features. Qualified for automotive applications, our HC08 and HCS12 cores set a standard for functionality versus cost. All family members are available with a variety of modules, memory sizes in Flash and ROM, and multiple package types.

56F8300 Hybrid Controllers

The 56F8x00 series of advanced hybrid controllers (DSPs/MCUs) offers blazing DSP performance and the easy-to-use control functionality of microcontrollers. Turbo-charged with up to 560 KB of Flash, fabricated in a 0.25µm Flash process, our controllers are optimized for extreme-temperature applications. The 56F8x00 series feature an on-chip voltage regulator, power management and off-chip memory expansion capabilities for glueless interfacing with additional memory of external devices. The hybrid architecture delivers 32-bit performance with 16-bit code density and facilitates the implementation of both control and signal processing functions in a single device.

MPC5200 Embedded Processor and Development Suite

Freescale's MPC5200, a highly integrated 400 MHz embedded processor based on the 603e PowerPC™ core, delivers 760 MIPS with a double-precision Floating Point Unit (FPU). The programmable BestComm DMA controller as well as its many interfaces, including 10/100 Ethernet, PCI, ATA/IDE, USB, SPI, I²C, I²S, MSCAN, J1850, GPIO, SDR/DDR, external BUS interface and Programmable Serial Controllers, enable not only such applications as Telematics, Infotainment systems, navigation systems and in-car cameras but also gateways, industrial controllers, instrumentation and data image processing systems. Building on the mobileGT™ Alliance and its successful foundation in the automotive market, a wide choice of hardware and software tools provides you with a comprehensive solution and aids in the reduction of time-to-market.

MPC5200 Evaluation and Development Packages

The Lite5200 Evaluation Board (EVB) is a classic, standalone evaluation board for the MPC5200 embedded processor. The Total5200 Software Development Platform is a comprehensive, self-contained system, which includes graphics and audio support and is suitable for system prototyping with little or no additional hardware.

Global market share leader for semiconductors for automotive applications*

Freescale Microcontroller Continuum

High-End *30-60 MHz 30-60 MIPS*	16-bit Hybrid Controller Family 56800/E MPC5500 & MAC7100
Upper Mid-Range *16-40 MHz 8-20 MIPS*	16-bit MCU Family HCS12 & HCS12X
Mid-Range *8-20 MHz 2-7 MIPS*	8-bit MCU Family HC08 & S08
Low-End *8-20 MHz 2-7 MIPS*	8-bit MCU Family HC08 QB/QC/QL/QY & S08

PowerPC™ MPC5500 Family

Motorola worked with the automotive industry since 1944 and was the first to develop computerised microcontrollers to reduce fuel consumption in 1978. As Freeescale, we continue on this leading position with the introduction of the MPC5500 family of products. This performance enhancement upgrade to the popular MPC500 family takes transmission and engine management to new levels of efficiency and performance for both diesel and gasoline engines. The MPC5500 marries the proven Flash technology implemented throughout Freescale's automotive product families with innovative peripherals. As an example, by moving more of the processing from hardware to software, the enhanced Timing Processor Unit (eTPU) significantly reduces cost.

MAC7100 Microcontroller Family

The MAC7100 family of microcontrollers (MCUs) is a pin-compatible family of 32-bit Flash memory-based devices developed specifically for embedded automotive applications. All MAC7100 family members are composed of a 32-bit central processing unit (the ARM7TDMI-S™ core), up to 512 KB of embedded Flash EEPROM for program storage, up to 32 KB of embedded Flash for data and/or program storage, and up to 32 KB of RAM.

MPXY80xx Tire Pressure Monitoring (TPM) Sensors

Our MPXY8020 and MPXY8040 pressure sensors are designed for the Tire Pressure Monitoring (TPM) system's wheel mounted area and comply with the FMVSS138 and existing car manufacturer requirements throughout the world. They enable timely driver warning in case of under-inflated tires in cars, trucks and buses. Combined with our external MC68HC908RF2 microcontroller and its embedded RF transmitter, our single-chip sensors integrate seamlessly with existing Remote Keyless Entry (RKE) systems, offering increased flexibility. If space is tight, our next generation sensors are expected to offer a high level of integration by combining a surface micro-machined capacitive pressure sensor with either a SmartMOS™ ASIC or an MCU with embedded RF transmitter and motion detection into a single 16-pin SOIC wide body package. Our KIT1951MPXY8020A evaluation kit is available to assist you.

Rollover Low-g Acceleration Sensors

Freescale's MMA1220D (8g, Z-Axis), MMA1250D, (5g, Z-Axis), MMA1270D (2.5g, Z-Axis) and MMA1260D (1.5g, Z-Axis) acceleration sensors are designed to meet the requirements of automotive rollover detection systems. These low-g devices are available in a 16-pin SOIC surface mount package for manufacturing ease. Our silicon capacitive, micromachined accelerometers feature signal conditioning, 4-pole and 2-pole low pass filters and temperature compensation. In addition, offset and filter cut-off are factory set and require no external devices. A full system self-test capability verifies system functionality as a standard feature.

MC33982 and MC33984 eXtreme Switches

The MC33982 and MC33984 are intelligent high current self-protected high-side silicon switches used to replace electromechanical relays, fuses and discrete devices in power management applications. The MC33984 is a 4mΩ dual switch with a 7.5A - 25A selectable current limit and a 75A or 100A inrush current. The MC33982 is a 2mΩ single switch with a 15A - 50A selectable current limit and a 100A or 150A inrush current. Both devices include self-recovery features and are suitable for loads with high inrush current, as well as motors and all types of resistive and inductive loads. Programming, control and diagnostics are implemented via the Serial Peripheral Interface (SPI). The MC33982 and MC33984 are packed in a power-enhanced 12x12 PQFN package with exposed pad.

MC33742 System Basis Chip

The MC33742 System Basis Chip (SBC) family includes 8- and 16-bit MCU companion chips for network applications, integrating complete power management and physical layer. These monolithic ICs combine many functions frequently used by the automotive Electronics Central Unit (ECU). Operating from 5.5 - 27V, they offer normal, stand-by, stop and sleep operational modes, a high speed 1MB/s CAN physical interface with fault reporting, four external high voltage wake-up inputs, a 150mA output current capability high-side switch, a programmable software time out and window watchdog, separate outputs for watchdog time out and reset, wake-up capabilities and an SPI-based interface with an external MCU.

i.MX21 Applications Processors

Freescale's i.MX applications processors' intelligent integrated peripherals, advanced processor core and power management capabilities address the requirements of portable products. The i.MX21 multimedia applications processor strengthens the product line's reputation of delivering robust performance with stamina. The device includes an Enhanced Multimedia Accelerator (eMMA) on chip and accelerated Java™ support in addition to highly integrated system functions. i.MX21 delivers superb multimedia performance thanks to Freescale's Smart Speed technology that optimizes CPU MHz utilization and minimises drain on battery life, making it ideal for mobile gaming devices, personal media players, PDAs and smartphones. Freescale and our AgentM network of developer partners and HW/SW tools providers are driven to support your designs.

DSP56374 Symphony™ Audio Onyx DSP

Freescale Semiconductor's Symphony™ audio Onyx™ DSP chip, DSP56374, can be used to enable consumer applications, such as audio/video receivers, headphones, DVD players, home theater in a box units, TVs, and a variety of automotive applications. The DSP56374, which is code compatible with Freescale's popular DSP56000 product family, performs various audio equalizing algorithms, compression, compensation, signal generation tone control, fade and balance functions, as well as audio sound-field processing algorithms. The part provides 150 MIPS at a 150 MHz clock frequency and features the Onyx™ core; 18K x 24 RAM split between program, X-data, and Y-data; 8K x 24 ROM split between X-data and Y-data; 20K x 24 ROM for program and bootstrap; a 24 x 24 bit multiplier-accumulator with a 56-bit barrel shifter; a six-channel DMA controller; a JTAG port; low-jitter PLL-based clocking and static CMOS design operation at frequencies down to DC.

MC9S08R Microcontrollers for Universal Remote Control

Freescale's MC9S08R MCUs have been designed with the needs of the universal remote control, handheld and portable consumer devices in mind. Based on our 8-bit HCS08 core, the MC9S08R MCUs are part of the popular and rapidly growing 8-bit portfolio with advanced technology for long battery life, high performance and additional enhancements such as advanced on-chip development support. Utilizing Freescale's industry-leading 0.25µm Flash, the MC9S08R offers an upward migration path from Freescale's other 8-bit architectures for applications that need lower power, more peripherals and higher performance. Other features include a carrier modulation timer for IR remote control communications, a serial communications interface, an analog comparator and two programmable timer channels. With MCU/Hybrid solutions ranging from 1.5KByte 8-bit to 512KByte, Freescale's leadership in embedded Flash NVM enables engineers to minimize design cycles, have a very flexible manufacturing flow and inventory management excellence as well as enabling EEPROM emulation to reduce system cost.

Ultra-Wideband Chipset for Media-Rich Wireless Applications

Ultra-wideband (UWB) technology adds significant value to wireless home entertainment and mobile multimedia products. These applications need a high data-rate and high Quality of Service (QoS) wireless connection to help ensure «wire-like» performance.

Freescale's UWB chipset provides full wireless connectivity implementing DS-UWB (direct sequence ultra-wideband) and the IEEE® 802.15.3 MAC protocol. The three-chip set delivers up to 114 Mbps data transfer rate and supports peer-to-peer as well as ad hoc networking for truly mobile wireless connectivity. Typical applications include streaming digital video and audio for digital cameras, MP3 players and PDAs, multiple wireless MPEG-2 or MPEG-2HD video streams, wireless Fast Ethernet, USB2 and IEEE®1394, home residential gateways or set-top boxes supporting secure digital video distribution to multiple displays or televisions and client device location tracking for wireless LAN (IEEE 802.11™) products.

Second-largest global market share for microcontrollers and embedded microprocessors for industrial control and consumer electronics*

MPC17533 Dual H-Bridge Motor Driver

Freescale's MPC17533 monolithic dual H-Bridge IC controls stepper and brush DC-motors in portable electronics applications such as camera lens shutters and optical disk drives. The MPC17533 features an enable and tri-state bridge control via a parallel MCU interface (3 and 5 V compatible logic). The 1.2 Ω low ON-Resistance IC has built-in shoot through current protection, an undervoltage detector and four output control modes: Forward, Reverse, Brake and Tri-state (Open).

MC33794 Capacitive Sensor Driver

The MC33794 is the industry's first IC for three-dimensional electric field imaging. The single chip solution generates and detects a low-level electric field and includes a microcontroller, reducing system components and cost for embedded contact-less sensing and three-dimensional electric field imaging. Up to nine simple independent electrodes can be connected to provide information on the size or location of an object in a weak electric field. Applications for the MC33794 include touch pads for appliance or brown goods, contact-less liquid level detection, object detection, and virtually any product or system that uses a touch panel input user interface. The MC33794DWB comes in a SOIC54 package. An evaluation board KIT33794DWBEVM is available to reduce your development cycle.

Low g XY-Axis MMA6260Q Acceleration Sensors in QFN

Freescale's MMA6260Q MEMS-based sensors are designed for end products or embedded systems that need to measure small forces resulting from tilt, motion, positioning, shock or vibration. The MMA6260Q low g sensors range from 1.5g to 10g and detect movements in two directions (X- and Y-Axes). By using a single sensor that integrates two axes, you can reduce component count—saving valuable space and optimizing cost in applications ranging from cell phones and anything handheld to hard disk drives. In addition, the combination of a MMA6260Q sensor with our MMA1260D Z-Axis sensor creates a 3-Axis sensing solution. A single package solution is expected to be released soon. Our RD1986MMA6260Q 3-Axis acceleration sensing TRIAX board is available to assist you.

Pressure Sensors for Water Level Control and Vacuum Cleaners

Freescale's MPXV5004, 5010 and 5050 pressure sensors allow direct and accurate water level control. The parts are ideally suited for microprocessor or microcontroller-based systems, feature on-chip temperature compensation over 10°C to 60°C and are available in gauge/differential configurations. Our MPXM2010 pressure sensors allow efficient motor control in vacuum cleaners, adapting the cleaner's power to the type of floor covering or bag filling. Temperature-compensated over 10°C to 85°C, the MPXM2010 is available in gauge ported and non-ported versions. To help you with your design, our RD1950MPXM2010GS water level reference design combines the MPXM2010GS, a dual op-amp, and the MC68HC908QT4 8-pin microcontroller.

IV - Consumer electronics by Freescale Semiconductor

www.freescale.com/consumer

MC9S12E128 Microcontroller for Industrial Control

Freescale's MC9S12E128 is a cost-effective MCU ideal for industrial control applications such as motor control, security and safety systems, light ballast and building control. Based on our HCS12 core, all MC9S12E family members feature standard on-chip peripherals including a 16-bit HCS12 central processing unit, up to 256K bytes of Flash and up to 16K bytes of RAM, three asynchronous serial communications interface modules (SCI), a serial peripheral interface (SPI), an Inter-IC Bus (IIC), three 4-channel 16-bit timer modules, a 6-channel 15-bit Pulse Modulator with fault protection module, a 6-channel 8-bit Pulse Width Modulator, a 16-channel 10-bit analog-to-digital converter, and two 1-channel 8-bit digital-to-analog converters. The MC9S12E128 provides digital control capabilities of numerous external analog devices such as motors.

ColdFire® 32-bit Microprocessors

The ColdFire® microprocessor range is an integral part of Freescale's 32-bit family. Manufacturers of a diverse range of embedded products – such as industrial and factory automation systems – have based their designs on the ColdFire® family for a fast and cost effective route to market. The ColdFire® portfolio offers a broad mix of performance, price, integration and debugging capabilities. From microcontrollers to highly integrated processors, with performance levels from 10 to over 400+ MIPS as well as a comprehensive array of development tools. We offer you the capability to create flexible, yet distinctive solutions that meet your customers' expectations.

ColdFire® MCF523x Family

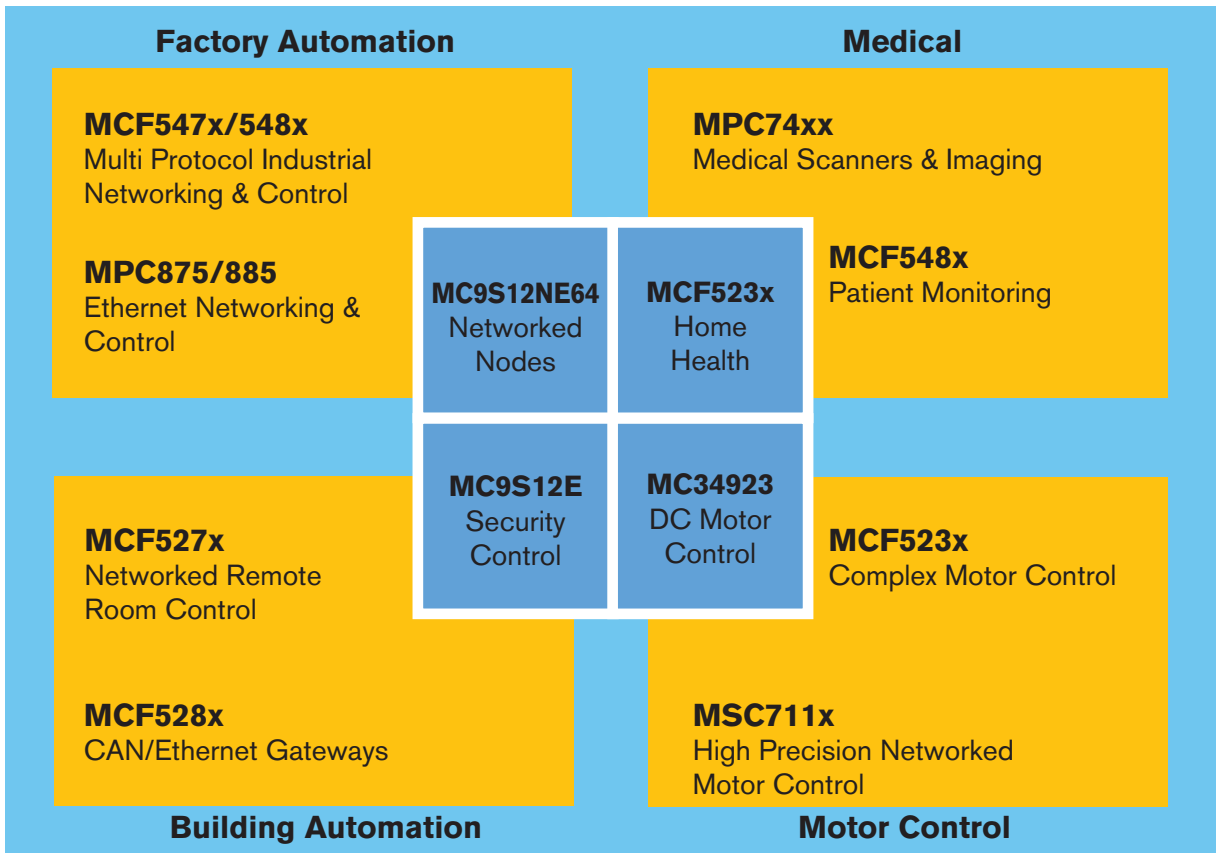
Offering the first ever combination of an enhanced Time Processing Unit (eTPU), encryption and 10/100 Ethernet MAC on the popular Version2 ColdFire® core, the MCF523x family addresses complex applications requiring more system throughput and a high level of communication security features. This family provides cost effective controllers for networked or stand alone, complex, real time control applications such as industrial control, manufacturing equipment and robotics. This combination of features also provides a natural migration path for current MC68332 family users requiring higher performance and/or networking support. The MCF523x family enables a more highly functional generation of products at a similar price point to more mature generations.

MPX2300D High Grade Pressure Sensors

Freescale's high grade pressure sensors address the specific needs of applications such as blood pressure and incontinency in the medical world. Our MPX2300D compensated pressure sensor is a cost-effective miniature pressure sensor packed in a Chip Pak, making it ideal as a disposable sub–module component. The concept of the Chip Pak allows great flexibility in system design. The MPX2300D uses Freescale's sensor die with its piezoresistive implant technology, along with the added feature of on–chip, thin–film temperature compensation and calibration. The MPX2300D is available in a 0–300 mmHg pressure range.

MC145010 and MC14468P Smoke Detector

Freescale's photoelectronic and ionization safety and alarm ICs are used in stand-alone units or as an interconnected system in applications operated using battery or AC power. The MC145010 photoelectric smoke detector contains sophisticated very low power analog and digital circuitry. When used with an infrared photoelectric chamber, detection is accomplished by sensing scattered light from minute smoke particles or other aerosols. The MC14468P ionization smoke detector is used in combination with an ionization chamber. Both MC145010 and MC14468P are designed to operate in smoke detector systems that comply with UL217 and UL268 specifications.



Second-largest global market share for microcontrollers and embedded microprocessors for industrial control and consumer electronics*

MC34923 H-Bridge Motor Driver

Freescale's MC34923 H-bridge motor driver is designed for pulse-width modulated (PWM) current control of DC motors. It is capable of continuous output currents up to 2A and operating voltages of up to 45V. Internal fixed off-time PWM current-control timing circuitry can be programmed via a SPI. DIR and PWM/ENABLE input terminals are provided for use in controlling the speed and direction of a DC motor with externally applied PWM-control signals. The PWM/ENABLE input can be programmed via the serial port to PWM the bridge in fast or slow current decay. The MC34923 features internal under voltage lockout thermal shutdown circuitry and crossover-current protection.

MC34710 Adjustable Dual Output Switching Power Supply

The 34710 is a dual-output power IC that integrates a switching regulator, linear regulator, supervisory function, and a power supply sequencer. With a wide input voltage range of 12 V to 34 V and robust temperature limits, the 34710 is ideal for embedded industrial and network control applications that need multiple voltages for the microprocessor and user circuitry. A user-selectable 5.0 V /3.3 V switching regulator is provided for board-level I/Os and user circuitry. The regulator is capable of delivering up to 1.0 A. The MCU core voltage is an adjustable 3.3 V /2.5 V / 1.8 V /1.5 V linear voltage regulator that can handle up to 500 mA.

Freescale's ZigBee™-Ready Platform

Freescale offers a comprehensive IEEE® 802.15.4 standard-compliant, ZigBee™ technology-enabled platform solution. We make wireless simple by providing a one-stop shop, complete with RF transceivers, MCUs, sensors, MAC software, Z-Stack ZigBee™ software and a flexible development tool suite. Virtually any low data rate, monitoring, control or automation application that requires long battery life and networking capability can benefit from the wireless connectivity solutions provided by the IEEE® 802.15.4 standard and ZigBee™ technology.

MC1319x Family of ZigBee™ Transceivers

Freescale's MC13191 and MC13192 are short range, low power, 2.4 GHz ISM band transceivers that provide cost effective solutions for short-range data links and networks. Our Simple Media Access Controller (SMAC) software supports the MC13191 whereas the SMAC and IEEE® 802.15.4 standard compliant Media Access Controller (MAC) software supports the MC13192. Applications based on the SMAC software can establish simple point-to-point or star proprietary network topologies. The IEEE® 802.15.4 MAC allows creation of standards-based peer-to-peer and star network topologies. Adding ZigBee™ technology to the IEEE® 802.15.4 MAC provides a standards-based solution for interoperable remote monitoring and control applications, with mesh and cluster tree networks.

V - Industrial control by Freescale Semiconductor

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